

CLAIMS

*Su b
C 2 P*

- ~~1. An isolated human angiogenesis-associated protein capable of binding an N-terminal fragment of plasminogen.~~
- ~~2. The protein of claim 1 wherein the N-terminal fragment of plasminogen is constituted by the kringle domains 1 to 4 of plasminogen.~~

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3. The protein of claim 1 or 2 comprising an amino acid sequence having at least approximately 80% sequence homology, preferably approximately 90% sequence homology, more preferably approximately 95% sequence homology and most preferably approximately 98% sequence homology to SEQ ID NOs. 2, 3 or 4.

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4. The protein of claim 3 which comprises the amino acid sequence of SEQ ID NO. 2.

5. The protein of claim 3 which comprises the amino acid sequence of SEQ ID NO. 3, wherein the amino acid residue in position 135 is Asn, Ser or Asp and the three amino acid residues in positions 148 to 150 are the tripeptide Glu-Leu-Ala or the tripeptide Thr-Trp-Pro.

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6. The protein of claim 3 which comprises the amino acid sequence of SEQ ID NO. 4.

7. A peptide capable of binding an N-terminal fragment of plasminogen and which has an amino acid sequence comprising at least 5 contiguous amino acid residues of SEQ ID NO. 2.

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8. A peptide according to claim 7 which has an amino acid sequence comprising at least 10 contiguous amino acid residues of SEQ ID NO. 2.

9. An isolated nucleic acid molecule comprising a sequence that codes for a

protein or peptide according to any one of claims 3 to 8.

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10. The isolated nucleic acid molecule of claim 9 encoding the protein of claim 4.

11. The isolated nucleic acid molecule of claim 9 encoding the protein of claim 5.

12. The isolated nucleic acid molecule of claim 9 encoding the protein of claim 6.

13. The isolated nucleic acid molecule of any one of claims 10 to 12 comprising at least the sequence from nucleotide 2177 to nucleotide 2608 of SEQ ID NO. 1.

14. The isolated nucleic acid molecule of claim 9 comprising the sequence from nucleotide 797 to nucleotide 2824 of SEQ ID NO. 1.

15. The isolated nucleic acid molecule of claim 14 consisting of the sequence of SEQ ID NO.1.

16. A nucleic acid molecule encoding a peptide according to claim 7 or 8.

17. A nucleic acid capable of specifically hybridizing, under stringent conditions, to a nucleic acid according to claim 9 to 16.

5 18. A vector comprising a nucleic acid according to any one of claims 9 to 17.

19. The vector of claim 18 which is a plasmid.

20. The vector of claim 18 which is a virus.

21. A recombinant cell transformed or transfected with the vector of claim 18.

10 22. An antibody or antibody fragment which specifically binds a protein or peptide according to any one of claims 3 to 8.

23. An antibody according to claim 22 which is a monoclonal antibody or fragment thereof.

24. The antibody of claims 22 or 23 for use as a medicament.

15 25. A recombinant cell expressing the antibody according to claims 22 or 23.

26. A screening method for identifying a compound capable of interacting with a protein according to any one of claims 1 to 6.

27. A compound identified through the screening method of claim 25.

28. The proteins, peptides or compounds of any one of claims 1 to 8 and 26 for use as a medicament.

29. Use of the proteins, peptides or compounds according to any one of claims 1 to 8 and 26 in the manufacture of a medicament directed towards an angiogenesis-related disease or disorder.

25 30. A pharmaceutical preparation comprising a protein, peptide or compound according to any one of claims 1 to 8 and 26 together with a pharmaceutically acceptable carrier.

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C5
add EJ

Sub
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C4/B